

addressed by the waking device broadcasting a general wake message to which each playback device is configured to transition from sleep to active or standby state and/or respond with its respective MAC address. This may result in the waking of every sleeping device.

#### V. Conclusion

[0155] The above discussions relating to playback devices, controller devices, playback zone configurations, and media content sources provide only some examples of operating environments within which functions and methods described below may be implemented. Other operating environments and configurations of media playback systems, playback devices, and network devices not explicitly described herein may also be applicable and suitable for implementation of the functions and methods. Various cloud services/networks, playback devices, and/or waking devices may be utilized in accordance with embodiments of the invention to maintain knowledge of a MAC address or other network identifier for a particular playback device.

[0156] The description above discloses, among other things, various example systems, methods, apparatus, and articles of manufacture including, among other components, firmware and/or software executed on hardware. It is understood that such examples are merely illustrative and should not be considered as limiting. For example, it is contemplated that any or all of the firmware, hardware, and/or software aspects or components can be embodied exclusively in hardware, exclusively in software, exclusively in firmware, or in any combination of hardware, software, and/or firmware. Accordingly, the examples provided are not the only ways) to implement such systems, methods, apparatus, and/or articles of manufacture.

[0157] Additionally, references herein to “embodiment” means that a particular feature, structure, or characteristic described in connection with the embodiment can be included in at least one example embodiment of an invention. The appearances of this phrase in various places in the specification are not necessarily all referring to the same embodiment, nor are separate or alternative embodiments mutually exclusive of other embodiments. As such, the embodiments described herein, explicitly and implicitly understood by one skilled in the art, can be combined with other embodiments.

[0158] The specification is presented largely in terms of illustrative environments, systems, procedures, steps, logic blocks, processing, and other symbolic representations that directly or indirectly resemble the operations of data processing devices coupled to networks. These process descriptions and representations are typically used by those skilled in the art to most effectively convey the substance of their work to others skilled in the art. Numerous specific details are set forth to provide a thorough understanding of the present disclosure. However, it is understood to those skilled in the art that certain embodiments of the present disclosure can be practiced without certain, specific details. In other instances, well known methods, procedures, components, and circuitry have not been described in detail to avoid unnecessarily obscuring aspects of the embodiments. Accordingly, the scope of the present disclosure is defined by the appended claims rather than the foregoing description of embodiments.

[0159] When any of the appended claims are read to cover a purely software and/or firmware implementation, at least

one of the elements in at least one example is hereby expressly defined to include a tangible, non-transitory medium such as a memory, DVD, CD, Blu-ray, and so on, storing the software and/or firmware.

1. A method for maintaining knowledge of the network identity of a network-connected playback device while changing power states, the method comprising:

determining that a playback device is entering a power state of sleep state;

sending state information from the playback device to a central data repository over a network responsive to the determination that the playback device is entering sleep state, where state information comprises a MAC address of the playback device;

receiving the state information about the playback device at a waking device from the central data repository;

waking the playback device periodically at predetermined time intervals while in sleep state to listen for messages addressed to the MAC address of the playback device; and

receiving a wake-up message at the playback device from the waking device and responding by changing from sleep state to active state.

2. The method of claim 1, further comprising:

maintaining a power state on a playback device, where the power state is in one power state of at least the states of: active, standby, and sleep;

broadcasting a MAC address associated with the playback device at a first predetermined time interval when the playback device is in the active power state;

broadcasting the MAC address associated with the playback device at a second predetermined time interval when the playback device is in the standby power state; and

ceasing broadcasting the MAC address when the playback device enters the sleep state.

3. The method of claim 2, further comprising:

reducing power to at least one electrical component of the playback device when the playback device transitions from the active power state to the standby power state; and

increasing power to the at least one electrical component of the playback device when the playback device transitions from the standby power state to the active power state.

4. The method of claim 1, wherein the central data repository is a cloud network.

5. The method of claim 1, further comprising sending a request for state information from the waking device to the cloud network, where the request for state information includes an identifier of the playback device.

6. The method of claim 1, where the playback device is not connected to an external power source.

7. The method of claim 1, where state information includes status of whether the playback device is in a state that cannot receive or respond to a magic frame.

8. The method of claim 1, where the wake-up message is unicast addressed to the playback device.

9. The method of claim 1, where the wake-up message is broadcast on a network that the playback device is connected to.

10. The method of claim 1, where the controller device is another member of a group acting as group controller requesting MAC addresses of all devices in the group.